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VOLUME II, ISSUE 14

AUGUST 15, 2007

## Avian Influenza: Current Global Situation Update

### AVIAN INFLUENZA CASES IN HUMANS

Since January 2004, the World Health Organization (WHO) has reported human cases of Avian Influenza A/ (H5N1) in more than twelve countries like Cambodia, China, Indonesia, Thailand, Vietnam, Azerbaijan, Turkey, Egypt, Djibouti, Iraq, Lao People's Democratic Republic, and Nigeria.

<http://www.cdc.gov/flu/avian/latestupdate.htm>

Cumulative Number of Confirmed Human Cases of Avian Influenza A/ (H5N1) Reported to WHO through August 14, 2007. WHO only reports laboratory-confirmed cases.

**Currently, there are no reported human OR animal cases of the highly pathogenic Avian Influenza (H5N1) in United States.**

- ◆ Total human cases of H5N1 (confirmed) = 320
- ◆ Total human deaths from H5N1 = 193

[http://www.who.int/csr/disease/avian\\_influenza/cases\\_table\\_2007\\_04\\_11.html](http://www.who.int/csr/disease/avian_influenza/cases_table_2007_04_11.html)

### World Health Organization (WHO)

#### Indonesia - August 14, 2007

The Ministry of Health has announced a new case of human infection of H5N1 avian influenza. A 29-year-old female from Bali Province developed symptoms on August 3rd and was hospitalized on August 7th. She died on August 12th. Investigations into the source of her infection indicate exposure to sick and dead poultry.



The case's five-year-old daughter was sick with a respiratory illness in the days preceding the onset of illness in the confirmed case. The daughter's onset of symptoms was July 26th; she was hospitalized on July 30th but died without suspicion of avian influenza infection on August 3rd in the district hospital. The child had contact with sick and dead poultry before becoming ill.

All of the household and healthcare worker contacts of the confirmed case have been traced. All remain healthy and will continue to be monitored for ten days after their last contact with the case.

*Of the 103 cases confirmed to date in Indonesia, 82 have been fatal.*

[http://www.who.int/csr/don/2007\\_08\\_14a/en/index.html](http://www.who.int/csr/don/2007_08_14a/en/index.html)

### H5N1 avian influenza in humans - Timeline of major events

Last update: July 30, 2007

[http://www.who.int/csr/disease/avian\\_influenza/ai\\_timeline/en/index.html](http://www.who.int/csr/disease/avian_influenza/ai_timeline/en/index.html)

### SPECIAL POINTS OF INTEREST:

- Cumulative Number of Confirmed Human Cases
- Pandemic Planning Update IV
- New Resource for Published Academic Articles

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## AVIAN INFLUENZA CASES IN POULTRY AND WILD BIRDS

### 25 Countries Report H5N1 Avian Influenza in Domestic Poultry/Wildlife in 2007

Afghanistan, Bangladesh, Cambodia, China, Czech Republic, France, Germany, Ghana, Hong Kong (SARPRC) (W), Hungary, India, Japan, Korea (Republic of), Kuwait, Laos, Malaysia, Myanmar, Pakistan, Russia, Saudi Arabia, Thailand, Togo, Turkey, United Kingdom, Vietnam.

#### Avian Influenza in birds - Timeline of major events

Latest update: August 8, 2007: <http://www.oie.int/H5N1/Timeline.htm>



## NATIONAL NEWS

### US Department of Health and Human Services - National Institute of Health News Release - August 9, 2007

Preparing vaccines and therapeutics that target a future mutant strain of H5N1 influenza virus sounds like science fiction, but it may be possible, according to a team of scientists at the National Institute of Allergy and Infectious Diseases (NIAID), a component of the National Institutes of Health (NIH), and a collaborator at Emory University School of Medicine. Success hinges on anticipating and predicting the crucial mutations that would help the virus spread easily from person to person.



Led by Gary Nabel, M.D., Ph.D., director of the NIAID's Dale and Betty Bumpers Vaccine Research Center (VRC), the team is reporting in the August 10, 2007 issue of the journal *Science* that they have developed a strategy to generate vaccines and therapeutic antibodies that could target predicted H5N1 mutants before these viruses evolve naturally. This advance was made possible by creating mutations in the region of the H5N1 hemagglutinin (HA) protein that directs the virus to bird or human cells and eliciting antibodies to it.

"What Dr. Nabel and his colleagues have discovered will help to prepare for a future threat," says NIH Director Elias A. Zerhouni, M.D. "While nobody knows if and when H5N1 will jump from birds to humans, they have come up with a way to anticipate how that jump might occur and ways to respond to it."

"Now we can begin, preemptively, to consider the design of potential new vaccines and therapeutic antibodies to treat people who may someday be infected with future emerging avian influenza virus mutants," says NIAID Director Anthony S. Fauci, M.D. "This research could possibly help to contain a pandemic early on."

<http://www.nih.gov/news/pr/aug2007/niaid-09.htm>

#### CDC Press release - August 8, 2007

School closures and other community strategies designed to reduce the possibility of spreading disease between people during an epidemic can save lives, particularly when the measures are used in combination and implemented soon after an outbreak begins in a community, according to a new study based on public records from the 1918-1919 influenza pandemic.

The findings, which are published in the Aug. 8 issue of the *Journal of the American Medical Association*, provide vital clues to help public officials planning for the next influenza pandemic and highlight the importance of community strategies. These strategies are particularly important because the intervention most likely to provide the best protection against pandemic influenza -- a vaccine -- is unlikely to be available at the outset of a pandemic. Community strategies that delay or reduce the impact of a pandemic (also called non-pharmaceutical interventions) may help reduce the spread of disease until a vaccine that is well-matched to the virus is available.

Scientists from the Centers for Disease Control and Prevention (CDC) and the University of Michigan Medical School's Center for the History of Medicine completed an exhaustive review of public records such as health department reports, U.S. Census mortality data and newspaper archives.

"Communities that were most successful during the 1918 pandemic quickly enacted a variety of measures," said Dr. Martin Cetron, director of CDC's Division of Global Migration and Quarantine and senior author of the study.

## National News (Cont.)

"Those planning for the next pandemic need to carefully consider how to best use these strategies to protect people and decrease the potential impact of the next pandemic in their communities."

These strategies – voluntary isolation and quarantine, dismissal of students from school classrooms, and social distancing in the workplace and community – form the basis for CDC's guidelines for how American communities can empower themselves to confront the next influenza pandemic.

The JAMA study evaluated public health measures such as school closures and cancellation of public events, which 43 American cities took during the 1918 pandemic. The researchers sought to determine whether the timing, duration and combination of such measures impacted the city's death rate during the pandemic.

To determine the public health measures' effectiveness, the researchers analyzed each city's excess death rate - the number of pneumonia and influenza deaths in excess of the amount expected for the time period.

<http://www.cdc.gov/od/oc/media/pressrel/2007/r070807.htm>

## LOCAL AND STATE NEWS

### Local News

San Diego County Animal Disease Diagnostic Laboratory Avian Influenza Test - Of the 15 birds tested in the month of July 2007, all were negative.

### Local Outreach

Activities related to Pandemic Influenza education in the regions continue with more than 101,000 educational brochures distributed to various community locations. In addition, a total of 124 presentations have been provided to staff and community residents.

### State News

California Department of Health Services Avian Influenza Forms and Guidelines - *Updated August 13, 2007*

[Download DHS Avian Influenza Forms and Guidelines](#)

## PANDEMIC FLU IN THE MEDIA

### Voice of America.com - August 7, 2007

Medical historian Howard Markel looks to the past for clues on what to do if a deadly avian flu hits and before scientists have found a vaccine or treatments.



Markel directs the Center for the History of Medicine at the University of Michigan. He says before scientists would be able to develop effective therapies against the pandemic flu there could be a crucial interval of about six months.

Markel says investigators also found that the longer public health measures were in place the more effective they were. The results of the study are published in the *Journal of the American Medical Association*.



During a 24-week period in 1918-1919, more than 115,000 excess pneumonia and influenza deaths in the 43 cities were attributed to

Emergency hospital during 1918 influenza epidemic, Camp Funston, Kansas (National Museum of Health & Medicine photo)

the pandemic. Cities that began interventions earlier had more success in decreasing excess deaths than those that implemented the measures later, regardless of how long the later interventions were in place or how they were executed.

The interventions assessed fell into three major categories: school closures, bans on public gatherings and isolation of sick people and quarantine of their healthy household contacts. The most common approach was closing schools combined with banning public gatherings. All but three of the 43 communities closed schools during the 24-week period studied.

Influenza pandemics occur when a new influenza virus emerges to which most people have little or no immunity and the virus gains the ability to spread easily between people. The 1918 pandemic sickened about 20 percent of the world's population and caused an estimated 40 million deaths worldwide, about 550,000 of them in the United States.

For more information about community strategies for pandemic influenza, please go to:

[http://www.pandemicflu.gov/plan/community/community\\_mitigation.pdf](http://www.pandemicflu.gov/plan/community/community_mitigation.pdf).

# Resources

- **County Vector Control Program's (888) 551-INFO (4636)** for info on how to protect birds, or to report dead birds.
- **HHSA's Avian and Pandemic Flu Info Line (619) 515-6900** for info regarding avian and pandemic flu.
- Educational materials are available for public distribution and are also downloadable from the county website: [www.sdbirdflu.org](http://www.sdbirdflu.org) or [www.sdpanicflu.org](http://www.sdpanicflu.org). Click on "Pandemic Flu".
- National Geographic International Edition: [www.nationalgeographic.com](http://www.nationalgeographic.com)
- World Health Organization (WHO): [www.who.int](http://www.who.int)
- Federal Dept. of Health & Human Services: [www.pandemicflu.gov](http://www.pandemicflu.gov)
- Federal CDC site: [www.cdc.gov/flu/pandemic](http://www.cdc.gov/flu/pandemic)
- State of California: [www.dhs.ca.gov](http://www.dhs.ca.gov)
- County of San Diego: [www.sdbirdflu.org](http://www.sdbirdflu.org)



*Avian/Pandemic Flu Newsletter* is published semi-monthly by the County of San Diego Health and Human Services Agency, Public Health Services.

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